

## Vernal Pool Fairy Shrimp (*Brachinecta Lynchi*)

Status -- Federal: Threatened; California: None



The vernal pool fairy shrimp is one of several species of Crustaceans found in California's vernal pools.

These unique, seasonal aquatic habitats form when winter rains fill shallow depressions. Lined with impervious clay, the pools persist for several months, then gradually evaporate during spring.



California Department of Pesticide Regulation  
Endangered Species Project  
Travis Air Force Base

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## Vernal Pool Fairy Shrimp



Map from *Fairy Shrimps of California's Pools, Puddles and Playas* by D. Belk & C. H. Ericksen, used with permission.

Vernal pool shrimp are generally 1 - 1.5 inches long. Fairy shrimp are usually translucent.

As dictated by their ephemeral habitat, fairy shrimp have short life spans. The vernal pool fairy shrimp has a life span from December to early May (if water temperature stays below 75 F).

### Food

Vernal pool fairy shrimp are filter and suspension feeders. Their diet mainly consists of unicellular algae, bacteria, and ciliates. They may also scrape algae, diatoms and protists from the surface of rocks, sticks and plant stems.

**Reproduction** Shrimp eggs are laid by the adults each winter season. However, eggs may lie dormant in the soil for up to ten years before hatching. Genetic diversity is important for the survival of any species. One pool's shrimp population may have genes another pool's population lacks. This diversity may mean that the first population survives a disease or other threat, which kills the population that doesn't have the needed gene. The genes of different shrimp populations can be mixed when eggs are moved from one pool to another via wind, water, or in the stomachs of migrating birds. Small, isolated populations of shrimp are more likely to go extinct because they lack the genetic diversity to withstand threats.

### Distribution

Vernal pool fairy shrimp are found scattered throughout the Central Valley from Shasta County to Tulare County, along the Coast Range from Solano County to San Luis Obispo and Santa Barbara Counties, and in southern California in Riverside and San Diego Counties.